

# ORION

CREW EXPLORATION VEHICLE

WEEKLY ACCOMPLISHMENTS



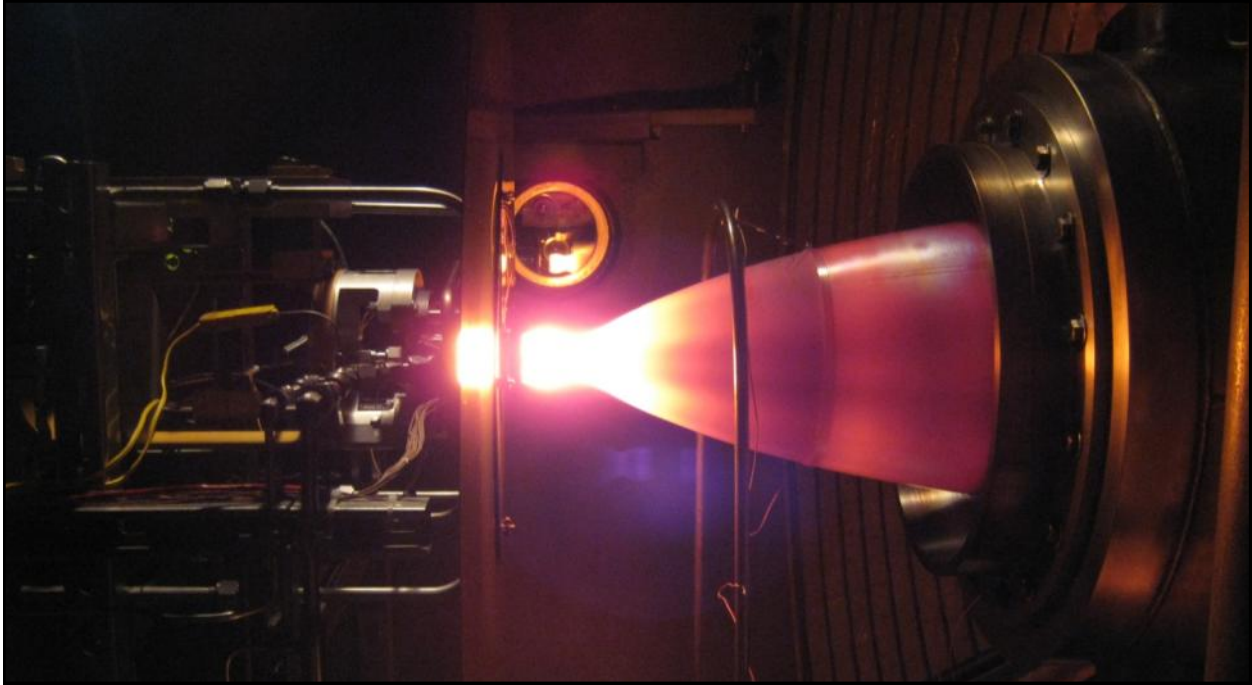
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**The Crew Module Ground Test Article was recently outfitted with parachutes (shown above) at the Michoud Assembly Facility in New Orleans, Louisiana.** The team has begun the TPS Attachment Structure (TAS) drilling operations and will continue to install the instrumentation that will capture critical structural response data during testing that will be used to correlate models and refine environments for component design, qualification, test and flight.



**The heatshield for the Crew Module Ground Test Article was recently moved to the Vertical Test Facility in Denver, Colorado where proof testing will begin in the Spring of 2011.** The proof test is a companion test to the proof test recently performed on the Crew Module Ground Test Article at the Michoud Assembly Facility. The data produced in the test will show how the load is shared between the TPS Attachment Structure and the Pressure Structure.



**Aerojet completed acceptance testing of the second R-4D development engine at their test facility in Redmond, Washington.** The R-4D (shown above) is the Aerojet engine that will be used on the Orion vehicle for Service Module Auxiliary propulsion. Eight R-4D engines, arranged in four pods of two each will provide thrust for critical Orion maneuvers. The R-4D Acceptance Testing was a critical milestone in the Orion Service Module Auxiliary Propulsion Program. Completion of acceptance testing demonstrates incremental progress and opens the way for the next phase of development testing.

**Progress continues on the Hydro Impact Basin excavation (shown right) at the Langley Research Center in Hampton, Virginia.** The contractor began the helical anchor installation on the basin floor and resumed anchor installation on the sloped walls. The construction of the basin is scheduled for completion by the end of the year.

